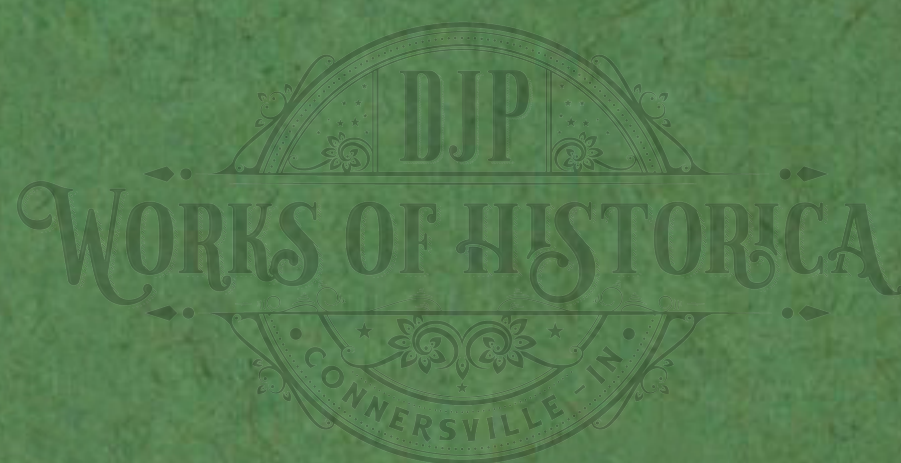


Helpful Hints *for* Ready Reference

On the Series "S"



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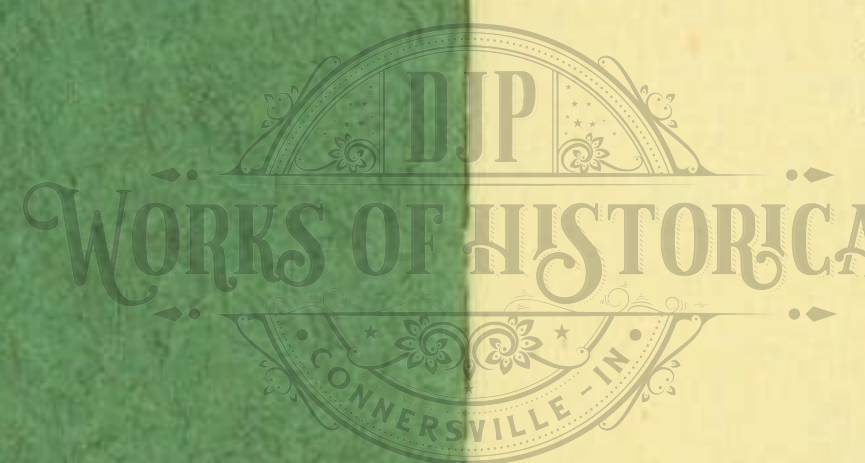
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A Word of Explanation

Pending the publication of our detailed and illustrated Instruction Book on the Series "S" models, this little pamphlet is furnished you.

It is most important that you study the information in the pages following, and that you secure your copy of the complete Instruction Book when ready. We suggest that you fill out and mail immediately the application blank on the last page.

The accompanying treatise is divided into two general subjects: "Lubrication" and "Adjustment."

Lubrication properly comes first because of its prime importance. A Lexington car, properly lubricated, should serve indefinitely—and with the minimum up-keep expense.

Lexington cars leave the factory in perfect adjustment and are carefully checked by our Dealers before going into service. Adjustments should not be necessary, barring accident or abuse, until the car has traveled several hundred miles.

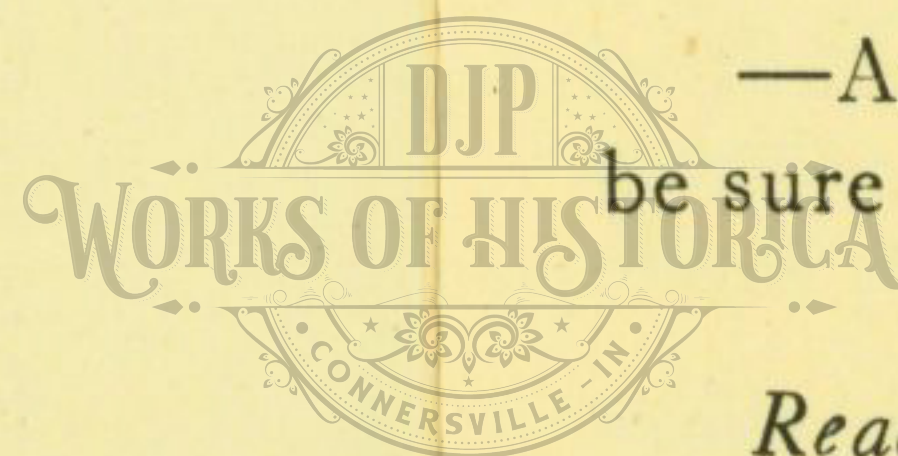
The suggestions under the Adjustment division are made for emergencies only. Whenever possible, adjustments should be made under expert supervision—and preferably at Lexington Service Stations.

Indiscriminate "tinkering" is more harmful to an automobile than months of hard usage.

When in doubt, let your car alone!

—And if adjustments are necessary, and no expert is available, be sure to do exactly as the "book says."

Read!—Don't Guess! And your car will run better! *Finally!* Don't fail to mail the request on the last page of this booklet.



LUBRICATION

1st—Motor

**Pump
Crank Shaft**

By gear pump the oil from reservoir under crank case is forced to the four main crank shaft bearings, thence through drilled crank throws to connecting rods.

Connecting Rods

Pistons

The oil thrown off from connecting rods lubricates cylinder walls and pistons. Pistons are grooved and drilled to prevent excess oil from entering the combustion chamber. Piston pins are hollow and drilled for lubrication of connecting rod bushing from oil wiped from cylinder wall. Crank shaft and connecting rod bearings are *bronze back, babbitt lined*.

**Combustion Chamber
Piston Pins**

Bearings

Cam shaft bearings are lubricated from oil pockets formed over each bearing.

Cam Shaft

Gears

Gears in front end are supplied from the overflow from pressure line. (Safety valve.)

Indicator

A sight indicator on right side of engine indicates the amount of oil in reservoir.

Filler Spout

A convenient filler spout is located on right side of engine.

Oil Capacity

Eleven to twelve pints of oil in reservoir is correct amount to carry. Do not exceed this amount to prevent the connecting rods dipping in ascending or descending a hill.

With this amount of oil a 12% grade can be negotiated without rods dipping.

Oil

Nothing but the very highest grade or quality of oil should be used. Medium grade in summer, light grade in winter. Watch the indicator. Add oil every few days to keep the reservoir full.

Add Oil

Pressure Gauge

The pressure gauge indicates the amount of pressure on the bearings. Pressure should vary with the speed and temperature of oil.

Change Oil

Completely change the oil in reservoir every 1200 to 1500 miles.

We recommend the use of Monogram (medium) or Mobiloil "A" in summer and Mobil-oil Arctic in winter.

2nd—Transmission

Transmission case can be filled from opening at left side, which is placed at proper height for correct amount of oil. Never fill above this level.

Use 600 heavy in summer and engine oil in winter. Fill every month.

3rd—Clutch

The clutch is a single plate dry disc and must be kept dry. We provide a hole at bottom of fly-wheel housing to allow any oil that may find its way into clutch compartment to get out. See to it that this hole is not allowed to stop up. In the end of throw-out shaft at right side is a small oil cup that supplies oil to a reservoir under throwout bearing. This should be filled about once a month.

4th—Rear Axle

The differential housing on rear axle should be filled with 600 heavy oil.

This can be done by unscrewing plug in rear cup near bottom of same and pouring in oil until it comes out at this opening. This is sufficient to lubricate bearings and gears. If any more than this amount is used, it will work out of the ends of axle tubes onto the brakes and cause trouble. This is sufficient for two or three months' use.

The hub bearings should be packed with good quality of grease every two or three months.

Removing the driving flanges gives access to bearings.

5th—Front Axle

Front hubs should be packed with good quality of grease every two or three months.

It is best to remove the nut on end of spindle and pull wheel off.

King pins in steering knuckles are fitted with self-oiling bushings. (*Phosphor bronze, graphite*)

Oil Recommended

**Hole in Fly-wheel
Housing**

**Clutch Throwout
Shaft**

Differential

Rear Hubs

Front Hubs

King Pins

lined.) Thrust is also taken on this type of bushing. This bushing provides sufficient lubrication to prevent seizing of pins at any time.

(Note: Where car is run continuously in mud and water without cleaning, it is sometimes necessary to remove the cap on top of knuckle and squirt some oil from can around end of pin and on outer edge of thrust collar. This is due to the fact that it is practically impossible to make the joint water-tight, which becomes dry around the edge, causing some extra friction noticeable at the steering wheel.

(The tie bar is fitted with self-oiling bushings; no oil needed.)

6th—Self-oiling Bushings

(Self-oiling bushings are used throughout the chassis whenever possible; not that they furnish better lubrication than oil, when oil is applied in sufficient quantity at the proper time, but to insure sufficient lubrication at all times for the user who is too careless or too busy to attend to it; they prevent such a person from getting into trouble from lack of any lubrication. They keep the car running. For the man who wants to oil, it is quite permissible for him to do so; put on as much as you like at any time.

(The improved bushing is made from the highest grade of bearing bronze, the inside of which has numerous small rectangular shaped depressions stamped in, into which is compressed pure graphite for lubricant. The bushing in form is the same as any plain type and mounted in same way.)

7th—Frame

Spring horn eyes fitted with self-oiling bushings.

8th—Springs

Spring eyes fitted with self-oiling bushings on hardened and ground steel bolts.

9th—Propeller Shaft

Propeller shaft is fitted with fabric joints; no oil needed.

10th—Steering Gear

Steering gear fitted with self-oiling bushings and packed with grease. Refill every six to twelve months.

11th—Fan

Fill reservoir in hub with engine oil every three or four months.

12th—Generator

One or two drops on generator bearings every month.

13th—Starting Motor

One or two drops on bearings every month.

14th—Water Pump

Keep cup filled with grease, give handle a turn every week to lubricate shaft and prevent water leak.

ADJUSTMENTS

1st—Engine

Shims are provided to take up wear in bearings should any occur.

Endwise adjustment is provided on front of gear cover. Care should be used to see that same is properly locked after adjustment is made.

Fly-wheel is marked for correct opening and closing of valves.

Removing cover on top fly-wheel housing will expose the marks and the pointer.

Inlet valves open 12 degrees after top center, close 40 degrees after bottom center. Exhaust valves open 40 degrees before bottom center, close 8 degrees after top center.

Head is detachable for valve grinding and removing carbon. Use a good valve grinding compound. (Never use emery and oil. It is liable to get into cylinders and ruin them.) In grinding valves never rotate the valve completely around, always rotate forward and back about one fourth revolution, using light pressure, often lifting valve from seat; this

Steering Gear

Fan

Generator

Starting Motor

Water Pump

Bearings

Cam Shaft

Timing Marks

Valve Timing

Cylinder Head
Valve Grinding

Tie Bar

Type of Bushing

Spring Horns

Spring Eyes

Propeller Shaft

	prevents the grinding compound from cutting furrows in valve or seat.
	Do not grind more than is necessary to obtain a good seat.
Valve Adjusting	Adjust valve tappets to have about .003 to .004 inch clearance. This will give quietness and provide for expansion when hot.
Water Pump	Keep stuffing boxes sufficiently tight to prevent water leaks.
	If packing needs renewing use only candle wick soaked in <i>melted mutton tallow</i> .
	Do not screw up tight and bind shaft.
Fan Belt	Keep fan belt reasonably tight for best results.
Ignition	Igniter head must be set to spark on top dead center when operating arm on igniter is in full retard position. Note position of distributor arm, and put on cover, connecting the wire that is over the arm with the plug in the proper cylinder, say No. 1, if that is the cylinder being used to check up on, taking the rest of the wires in succession to their respective cylinders.
Rotation of Igniter	Igniter rotates in a clockwise direction as viewed from top.
Firing Order	Firing order of the cylinders is 1-5-3-6-2-4.
Breaker Point Opening	Breaker points in igniter head should show a .015 inch opening when properly set.
Spark Plug Gap	Spark plug gaps should be set to .020 inch opening.
Type of Plug	Use only a high grade plug $\frac{7}{8}$ -18-S.A.E. Standard size with electrode wires not over .060 inch size. Best results are to be had from plugs with .050 inch wire.
	Recommend only Champion, Bethlehem, or A. C. make of plugs.
Carburetion	Incorporated in the Moore Multiple Exhaust System manifold is a device that converts all the heavy portions of the fuel not vaporized by the carburetor into gas, which is taken up by the air stream and carried into engine

cylinders to do useful work instead of going down cylinder walls, destroying lubrication. So perfectly does this device function on present-day low-grade gasoline that it is not even necessary to provide or pass heat through carburetor, in fact it functions perfectly, even with a cold engine. This is the Lexi-gasifier.

All that is required of the carburetor is to properly meter the correct ratio of air and fuel.

In starting, especially in cold weather, it is necessary to fit carburetor with a dash control, which should be pulled out when starting, in order to supply a sufficient amount of fuel to mix with air to form explosive mixture. After a few moments of running the dash control can be pushed in.

With this device we have never found it necessary to change the carburetor setting from summer to winter conditions.

After engine has run a few minutes to heat exhaust manifold, with throttle closed and spark retarded, adjust idler screw until engine runs smoothly.

With a .030 inch feeler gauge inserted in the opening in the high speed cam on the thumb screw side adjust until cam is snug against feeler. This will give good results and can be used as a basis to start.

After going on road, if mixture is rich the engine will quickly tell you by its rolling sound; if lean, it will hesitate upon kicking throttle wide open at low speeds.

Correct by adjusting cam in or out. Note markings on adjusting screw.

2nd—Clutch

Remove cover plate on clutch housing.

Turn engine over slowly until one of the large bolts on clutch case comes up into view; loosen this bolt until it is free.

Turn engine over one-half revolution exposing a second bolt. After loosening this, press clutch pedal down until clutch is free and with right hand move the bolt to the right in the

Carburetor

Dash Control

Summer and Winter Adjustments

Carburetor Adjusting For Low Speed

For High Speed

Clutch Adjustment

slot about one fourth inch, or more if necessary. Setting up too tight will prevent clutch releasing. Moving to the right tightens clutch, to left loosens it.

Be sure to tighten up bolts securely.

Clutch Pedal Adjustment

Be sure that the pedal is not allowed to bear against the toe board. It may hold clutch partly out of engagement, causing it to slip or burn out.

An adjustment is provided at the hub for this purpose.

Clutch does not stop with pedal fully depressed

Almost invariably the clutch needs adjusting up tighter to prevent the toggle levers passing the center. A closer adjustment will prevent this and allow shaft to stop.

3rd—Rear Axle

Rear Axle

The rear axle is of the floating type which means that the shafts that drive the wheels float in the axle housing without supporting any of the car weight.

Rear Wheel Bearings

The wheel bearings are mounted directly on the housing.

Large single row ball bearings, non-adjustable type, simply screw up the retaining nut tight and lock in place.

Driving Pinion

The driving pinion is adjustable only by means of shims. It is carefully and accurately set at the factory, and locked.

It can not change and needs no adjustments.

Differential

Differential is adjustable endwise only.

Very accurately checked for position and should not be changed.

4th—Front Axle

Front Wheel Bearings

Front wheel bearings are non-adjustable ball bearings, simply tighten up the nut and put in the cotter pin.

5th—Brakes

Service Brake

Service brakes are contracting on 16-inch diameter drums.

A steel cable connected to one lever passed around a grooved pulley attached to a pedal

arm and back to lever on opposite drum, making the best form of equalizer.

Over this cable is a flexible housing of closely wound steel wire, covered with a weather-proof material to keep out mud and water

The rear ends of the housing are anchored to the axle, the forward ends are anchored to the frame near the pedal. Since the housing is practically non-compressible, it is evident that what cable that is pulled out at front end must come in at rear end, thereby setting the brake.

The inner and outer members being flexible any movement of axle due to road condition is not transferred to the pedal.

A simple screw and lock nut serves to take up any slack in cable due to wear of the lining.

With any great amount of wear in lining, causing too much pedal travel, by setting up the brake lever stop screws at rear drums as close as they will go without causing the bands to drag, then taking up the slack in cable at pedal end, the brakes can be kept in first class condition until lining is worn out.

A little engine oil squirted into the housing at the front end every few weeks will keep cable free.

Brake Adjustment

MISCELLANEOUS

How to Use the Brakes

Brakes should come in for their share of attention. Good brakes are just as essential to an automobile as a good motor. They are necessary sometimes to prevent accidents.

Always see that they are free and move easily.

Never apply brakes harshly except in cases of emergency. It is hard on tires.

In descending long, steep grades, do not unclutch and allow car to coast, but close throttle, retard spark, and allow motor to hold car, using brakes only to help motor. *This is far safer.* In fact, never kick out the clutch unless it is absolutely necessary.

In approaching a rough place, or a turn in road, leave clutch in, close throttle, and apply only enough brake to accomplish the desired result. This is easier on the car, more economical in fuel, and far more comfortable to passengers; after passing over you have only to release the slight pressure on brake, open the throttle, and speed up without jerks or racing of motor, slipping clutch to get started, and all unnecessary labor. In fact, you have saved time in so doing.

Emergency Brake

Located at rear of transmission, acting on drum attached to driving flange.

This brake is just what the *name implies*, and should be used only in *case of emergency*, and for *holding car while standing*.

Its operation is so easy that we have named it the *One-Finger Emergency Brake*, meaning that it can be set with one finger.

Lighting Generator

Type of Generator

Generator output is controlled by third brush regulation. Single wire system.

Normal Charging Rate

Generator should cut in on the line around seven or eight miles per hour car speed.

Should balance lamp load of eight amperes at about twelve M. P. H. and show a maximum charge of fifteen amperes at sixteen to eighteen M. P. H. car speed.

A slight reduction in charge rate when generator is hot will be noted.

Temperature

The temperature of the generator should not exceed 175° Fahrenheit.

Brush Adjustment

Position of third brush can be changed by a screw driver, through a rack and pinion adjusting device at rear of generator, the shaft extends through with screw driver slot.

Maximum Rate

Charging rate should never be set to exceed 15 amperes at any speed.

This can be done with generator running by noting the ammeter reading.

Starting Motor

With a 6-volt battery, 1275 specific gravity, at 70° temperature, give 20.6 foot pounds stall torque with free engine, will draw 320 amperes kick and 130 amperes run.

Cranking speed of engine 140 R. P. M.

Ammeter

The amount of charge or discharge into battery, (except starting current), is, at all times, shown on the ammeter, mounted on instrument board. The ammeter (the tell-tale of the electric system) should be observed occasionally at different speeds until familiar with the workings of the electric system. The hand should stand at zero at all times when motor is not running and lamps turned off. If hand shows discharge it indicates a leak in lines and should immediately be looked after.

With motor running slowly, hand will show zero, but slightly increasing speed of motor, hand should begin to show charge and should show a maximum charge at sixteen to eighteen M. P. H. of about 15 amperes. When all lamps are turned on at this speed (the lamp load being 8 amperes), the hand should drop back to about 7 amperes indicating that generator is carrying full lamp load and charging battery at 7 ampere rate.

Fuses

We have provided a set of fuses, mounted on left side of dash, under hood, for the several lines leading to lamps. In case of short circuits or trouble to lamps these will blow and save the battery from injury, before replacing fuse (extras should be carried at all times) ascertain the trouble.

Battery

Battery must be looked after at regular intervals (once a week in summer). Plates must be kept covered by adding distilled water only; never at any time run the motor without the battery connected—you may ruin the generator.

Characteristic

Ampere Draw

Switch

Lamps Bright

Lamps Dim

Ignition Key

Automatic Kick Off

Lamps controlled by raising lever on left side, and raising or lowering the lever on right side gives bright or dim respectively.

Ignition on or off by key in center. Up position off, down position on.

In the center above, the little button, *with the red neck*, is the automatic kick-off. Should you fail to turn ignition off, for any reason, this will kick off the current automatically and prevent trouble.

Should it kick off at any time, it is then necessary to reset, by pushing the button in, in order to start engine.

Drain Motor to Prevent Freezing

At the base of water pump is provided a drain plug, another drain cock is provided directly under the water pump, also one under radiator, making a total of three in all, which, if opened, will allow all water to drain from the system. After the water has all run out, it might be well to crank the motor over a few turns by hand to make sure that none remains in pump.

To drain the system is very necessary in frosty weather. If car is allowed to stand in an open shed or unheated building, a good frost will do more damage than a light freeze.

Anti-freeze Solution

A good anti-freeze solution that can be depended upon is made up of a 30 per cent solution of denatured alcohol and water (*rain water*). Such a mixture will stand 9 degrees below zero without damage. Same is harmless to working parts of motor and should always be used in cold weather if car is in commission at all.

Alcohol and Water to Prevent Freezing

Percentage By Volume

Water, 95%; Denatured Alcohol, 5%.....
.....Freezing Point, +25°

Water, 90%; Denatured Alcohol, 10%.....
.....Freezing Point, +18°

Water, 85%; Denatured Alcohol, 15%.....
.....Freezing Point, +11°

Water, 80%; Denatured Alcohol, 20%.....
.....Freezing Point, + 5°

Water, 75%; Denatured Alcohol, 25%.....
.....Freezing Point, — 2°

Water, 70%; Denatured Alcohol, 30%.....
.....Freezing Point, — 9°

Water, 65%; Denatured Alcohol, 35%.....
.....Freezing Point, —15°

Water, 60%; Denatured Alcohol, 40%.....
.....Freezing Point, —23°

The alcohol will evaporate before the water does and care should be used that the solution is kept up to the proper density for the existing temperature. Alcohol will have to be added from time to time.

How to Wash Car

On this depends the life of the gloss and finish of your car. If proper care is used for the first three or four weeks the car is in use, you will have little cause to regret its looks at the end of the season.

Allow cold water from end of hose to play on body and gear in a gentle stream (never use a nozzle and apply with force), until mud or dust is thoroughly soaked. After removing all you can in this way, use a thoroughly clean sponge, allowing hose to play on it, keeping full of water. Daub or mop the entire body. (Under no circumstances rub; you will scratch no matter how careful you may be). After which go over body with soft chamois skin and clean water, keeping same thoroughly soaked, leaving body to stand in this condition for a while; proceed with fenders and gear in same way. After water has nearly all drained from body, wipe off with chamois, from which you have squeezed all the water. Finish up with gear in same manner.

A good linseed oil soap is fine to remove grease.

Be sure that sponges and chamois are kept free from grease.

If followed, you will be surprised at the good looks of your car at end of season. Never allow car to stand over night unwashed if you have been driving in mud during the day. *Mud is to varnish what soap is to grease.*

A Few Don'ts

Don't use poor oil and expect good results.

Don't change carburetor adjustments unless you know what you are doing.

Don't change carburetor if one cylinder is missing. Look after plugs or valves.

Don't change carburetor if motor fails to start. Maybe a battery wire is loose.

Don't change carburetor if water boils. Look after fan belt, it may need tightening.

Don't allow bolts to remain loose. We would not put them there if unnecessary.

Don't press starter button unless gear shift lever is in neutral.

Don't fail to lubricate car thoroughly.

Don't run tires soft. It's expensive. Cheaper to pump them up.

Don't race motor; you will have to pay for it in the end.

Don't forget to clean your car and expect it to look good next season.

Don't allow leaks in water system; you may run out of water and ruin motor.

Don't allow leaks in gasoline system; it is dangerous as well as costly.

Don't fail to add distilled water to your battery (keep the plates covered), you may regret it.

Don't use lights except when needed.

Don't play with starter; you might have to use crank.

Don't run motor without having battery wires connected, you will ruin generator.

Don't change your carburetor if motor does not act well at first starting—wait until it warms up. Use the choker.

Some Facts You Should Know

3¼ inch bore, 4½ inch stroke—6 cylinders.

224 cubic inches displacement.

25.4 horse power, S. A. E. rating.

46.3 actual brake horse power at 2250 R. P. M. with mufflers attached, cut-out closed.

With Moore Multiple Exhaust System, engine delivers exactly same horse power with cut-outs closed as when same are open. No need to open them on the hills.

Wheelbase, 122 inches.

Wheel diameter, 32x4 inches.

Gear ratio, 4⅝ to 1.

Touring Car, tanks filled and extra tire, weight 3050 pounds.

Turning radius, 41 foot circle.

Gasoline capacity, 17 gallons.

Oil capacity, 11 to 12 quarts.

Water capacity, 19 quarts.

Air Pressure, rear tires, 65 pounds.

Air Pressure, front tires, 35 pounds.

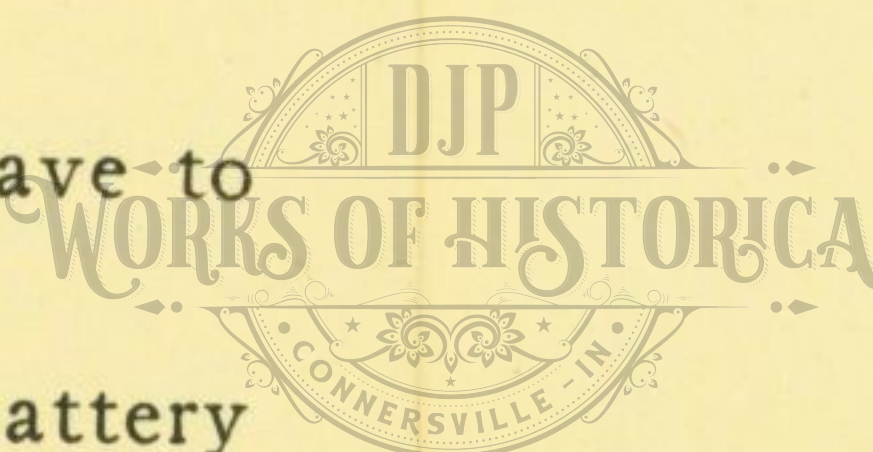
Weight on front tires about 1415 pounds, without passengers.

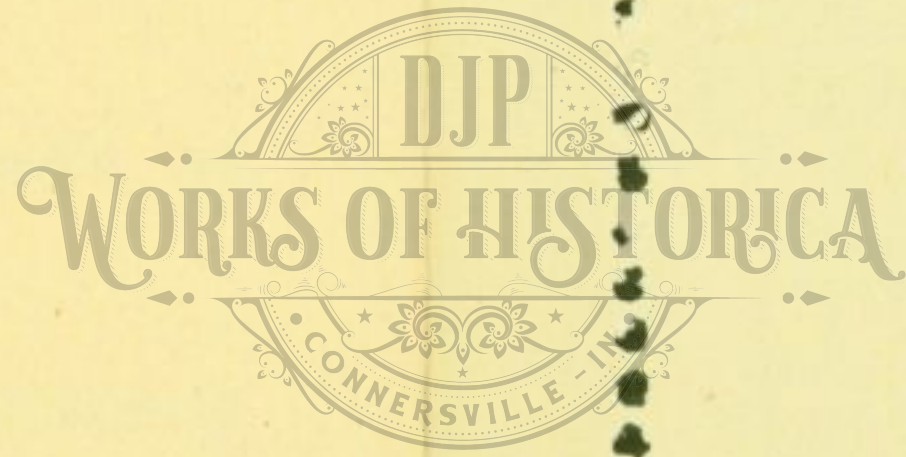
Weight on rear tires about 1610 pounds, without passengers.

Motor

S. A. E. Horse Power

Actual Brake Horse Power





Date_____

LEXINGTON MOTOR COMPANY

Connorsville, Indiana

Gentlemen:—Please send the undersigned, as soon as ready, a copy of the complete Series "S" Instruction Book.

Serial No._____

Very truly yours,

Bought from_____

Date delivered_____



